

A logic system in a data packet processor is provided for selecting and releasing one of a plurality of contexts. The selected and released context is dedicated for enabling the processing of interrupt service routines corresponding to interrupts generated in data packet processing and pending for service. The system comprises, a first determination logic for determining control status of all of the contexts, a second determination logic for determining if a context is idle or not, a selection logic for selecting a context and a context release mechanism for releasing the selected context. Determination by the logic system that all contexts are singularly owned by an entity not responsible for packet processing and that at least one of the contexts is idle, triggers immediate selection and release of an idle one of the at least one idle contexts to an entity responsible for packet processing.